Colposcopic Terminology

COLPOSCOPY HAS GAINED tremendously in popularity in this country during the past ten years and has now become an accepted part of the gynecologist's armamentarium for diagnosis of cervical, vaginal and vulvar neoplastic disease. One of the major problems in colposcopy has been and remains the confusing terminology used in describing colposcopic findings. In the last few years efforts have been made to simplify and clarify this terminology so that now the more commonly used terms are more appropriate. Included in this epitome are the colposcopic terms and some synonyms. The terms without parentheses are the ones most commonly used by colposcopists in the United States. The synonyms and some of the older terminology are enclosed in parentheses. Knowledge of standard terminology is a prerequisite for understanding the literature on the subject and for effective communication among practicing gynecologists, colposcopists and pathologists. The terminology is based on topographic descriptions as viewed through a colposcope with magnification of 10 to 20 times after application of acetic acid to the tissue. Only the term "transformation zone" is defined here because this is the area in which neoplasia occurs most frequently.

Normal Colposcopic Findings

- Original squamous epithelium (mature squamous epithelium)
- Columnar epithelium (plus original squamous epithelium equals original epithelia eversion, erosion, ectropion, ectopy)
- Transformation zone (zone of epidermization or metaplasia) is an area of metaplastic squamous epithelium between the original squamous epithelium and the columnar epithelium

Abnormal Colposcopic Findings

An atypical transformation zone is one in which the metaplastic epithelium has colposcopic features suggestive of neoplasia. These features are:

- White epithelium (fine leukoplakia)
- Punctation (ground, base)
- Leukoplakia (coarse leukoplakia)
- Abnormal blood vessels (adaptive vascular hypertrophy)
- Suspect invasive cancer (coloscopically overt carcinoma)

Other Colposcopic Findings

- Cervicovaginitis (colpitis)
- True erosion (erosio vera)
- Condyloma and papilloma
- Nabothian cysts
- Polyp
- An unsatisfactory examination is one in which the squamocolumnar junction or entire lesion cannot be seen

Numerous references including the ones listed below are available for definitions of the terms included here with detailed descriptions and colpophotographs. The terminology here is accepted and should be employed for clarity and effective communication.

EDWARD W. SAVAGE, MD

REFERENCES

Odell LD, Savage EW: Colposcopy, *In* Wyn RM (Ed): Obstetrics & Gynecology Annual. New York City, Appleton-Century-Crofts, 1974, pp 473-508

Coppleson M, Pixley E, Reid B: Colposcopy, *In* Gray LA (Ed): A Scientific and Practical Approach to the Cervix in Health and Disease. Springfield, Chas. C Thomas Co, 1971, pp 34-43

DiSaia PJ, Morrow CP, Townsend DE: Colposcopy, *In* Quilligan EF (Ed): Synopsis of Gynecologic Oncology. New York City, John Wiley & Sons Publishers, 1975, pp 95-105

Kolstad P, Stafl A: Terminology and definitions, *In:* Atlas of Colposcopy. Baltimore-London-Tokyo, University Park Press, 1972, pp 18-19

Xerography of the Breast

XEROGRAPHY OF THE BREAST is a method of study by means of conventional x-rays. The image is created on the surface of a selenium coated plate. Then it is transferred and fused permanently to a specially prepared paper. The images obtained are regarded as highly accurate. In general, there is a higher resolution, a wider latitude and more information than on conventional film mammograms. Many radiologists feel xeromammograms are easier to interpret than film mammograms. This modality of breast examination has been widely used only in the past several years.

Xeromammography has become an excellent method for the detection of occult carcinoma of the breast. As radiologists gain experience with it, the detection of occult carcinoma has been reported as high as 1 percent of all patients examined. In two large series, occult carcinoma represents approximately a third of the cancer found by xerography. Periodic screening of asymptomatic women by xeromammography is being practiced in many communities. At present, it is recommended that the examination, when

carried out on asymptomatic women, be limited to those 35 years of age and older.

The x-ray diagnosis of cancer is usually made because of a mass with or without calcification or because of calcification alone. In occult lesions, precise preoperative localization of the lesion as well as x-ray studies of the specimen are necessary in many cases. X-ray examination should never replace physical examination because, like nearly all medical tests, it is not totally accurate in the detection of cancer. When dominant mass lesions are noted on physical examination, biopsy studies should be done even if findings on a xeromammogram are negative. Nonetheless, xeromammography appears to be an excellent method of diagnosing carcinoma of the breast and, at present, offers the best opportunity for diagnosis of occult carcinoma.

WILLIAM G. KARRAS, MD

REFERENCES

Wolfe JN: Xeroradiography of the Breast. Springfield, Charles C Thomas, 1972

Martin JE: Xeromammography: An improved diagnostic method —Review of 250 biopsied cases. Am J Roentgenol Radium Ther Nucl Med 117:90-96, Jan 1973

Frankl G: Xeroradiographic detection of occult breast cancer. Cancer 35:542-548, Feb 1975

Wolfe JN: Analysis of 462 breast carcinomas. Am J Roentgenol Radium Ther Nucl Med 121:846-853, Aug. 1974

The Stilbestrol-Adenosis-Carcinoma Syndrome

ALERTED BY A sequence of seven adolescent girls with adenocarcinoma of the vagina seen in 1966 and thereafter, we conducted and reported in 1971 a review study with suitable controls showing an extraordinary association between the lesion and antenatal exposure to diethylstilbestrol (DES).

Rapid dissemination of this fact during the development of a worldwide registry of such cases soon brought to medical attention numbers of girls and young women known to have been similarly exposed. Findings on examination showed that in most there were anomalies of development of the vagina and cervix, including unusually broad cervical erosion (ectropion), cervicovaginal ridges or furrows and extensive patches of vaginal adenosis. Persons exposed before the eighth week of pregnancy are most likely to show teratogenic effects; initiation of DES therapy after 18 weeks have elapsed apparently no longer carries this risk.

In most of the patients with carcinoma there have been coexisting areas of benign adenosis, but transition from one to the other has not yet been shown. The preferred treatment for benign adenosis, therefore, is not yet clearly established. Although it is tempting to recommend mechanical excision or destruction, the extent and distribution of patches of abnormal epithelium detected by colposcopy, Schiller's testing, biopsy or cytology is often such that it would require a formidable procedure and some risk of permanent deformity or stenosis.

Carcinoma has developed in only a small fraction of the women at risk, perhaps in less than one per thousand. The tumors are usually adenocarcinomas of the clear-cell type and can be successfully treated either by surgical procedures or radiation. However, spread by lymphatics is early, and tumors more advanced than stage II (Federation Internationale de Gynecologie et d'Obstetrique [FIGO] classification for cervix or vagina) are likely to have extended to the pelvic nodes. Adequate treatment for cure cannot avoid sacrifice of fertility, but sexual function is well preserved in patients amenable to radical surgical resection with simultaneous replacement of the vagina by a skin graft over a mold.

HOWARD ULFELDER, MD

REFERENCES

Ulfelder H: Stilbestrol, adenosis and adenocarcinoma. Am J Obstet Gynecol 117:794-800, Nov 1973

Reagan JW, Herbst AL, Morrow CP, et al: Adenosis and clear-cell adenocarcinoma of the vagina: A Symposium. Reproductive Med 15:2-32, Jul 1975

Immunology in Fertility

THE PROBLEM of infertility and immunology is multifaceted. Men with sperm agglutinins and oligospermia or azospermia, women with hostile cervical mucous, couples with unexplained infertility and women with early spontaneous abortions may all fall victim to an immune reaction.

It has been known for some time that men with vasectomies or with obstructive duct disease may develop sperm agglutinins and immobilizing antibodies. Findings in recent studies have shown that in a significant percentage of infertile couples, these same antibodies can be found in the sera of the husband and wife as well as in semen.

Tien, in a review article, emphasized the general principles concerning this problem: